

# **BACKGROUND PAPER FOR HEARING JANUARY 7, 2004**

## **BOARD FOR PROFESSIONAL ENGINEERS AND LAND SURVEYORS**

### **IDENTIFIED ISSUES, BACKGROUND CONCERNING ISSUES, STAFF RECOMMENDATIONS, AND QUESTIONS FOR THE BOARD**

**PRIOR SUNSET REVIEW:** The Board for Professional Engineers and Land Surveyors (Board) was first reviewed by the Joint Legislative Sunset Review Committee (JLSRC) seven years ago (1996-97). The JLSRC and the Department of Consumer Affairs (Department) recommended only extending the existence of this Board for two more years because of major unresolved issues pertaining to the regulation of engineers. The Legislature passed SB 828 (Greene) (Chapter 828, Statutes of 1997), which extended the Board's sunset date to July 1, 2000 and instructed the Board to address the unresolved problems as identified by the JLSRC and the Department prior to the next sunset review hearing. SB 1306 (Figueroa) (Chapter 656, Statutes of 1999) extended the sunset date of the Board for one more year, so that it could be reviewed in 1999.

During the Board's review in 1999-2000, the Board was required to address a number of issues and report on its progress in resolving many of these problem areas identified by the JLSRC. It was revealed that little progress had been made by the Board on some of the more difficult issues which the Board was directed to address pursuant to its first sunset review. Because of the concerns raised by both the JLSRC and the Department, as well as those from the profession and the Center for Public Interest Law (CPIL), the Board was specifically directed to work more closely with the JLSRC and the Department to implement the following recommendations: (1) conduct an independent review of the Professional Engineer's Licensing Act; (2) specifically define electrical and mechanical engineering in statute rather than in regulations; (3) seek statutory authority to adopt a code of professional conduct for the engineering profession; (4) codify all policy resolutions or other proposals relating to any aspect of its licensing authority as either regulations or statutes; (5) pursue legislation to adopt a written contract requirement for engineers; (6) pursue legislation to make "clean-up" amendments to the Professional Engineer's Licensing Act and the Professional Land Surveyors' Act; (7) eliminate state-only examinations for structural engineering and land surveying and provided instead the current national examinations; (8) implement a schedule for performing new occupational analyses for examinations provided by the Board to meet current legal requirements; (9) seek new fee increases to avoid a budget deficit; (10) seek legislation to change the composition of the Board so that it adequately represents engineers from the public sector.

In September 2003, the Board submitted its required sunset report to the JLSRC. In this report, information of which is provided in Members' binders, the Board described actions it has taken since the Board's review in 1999-2000. The following are some of the major changes and enhancements the Board has made pursuant to the recommendations of the JLSRC:

- ***Study of Professional Engineer's Licensing Act.*** The JLSRC, the Board, and the Department decided that the best way to address this issue was to contract with an independent consultant to perform a review of all of the Title Act branches. Senate Bill 2030 (Chapter 1006, Statutes of 2000) mandated that an independent research group conduct an in-depth analysis of the Professional Engineer's Licensing Act, by adding Section 6704.1 to the Business and Professions Code. The California State University Sacramento Institute for Social Research (ISR) was hired and oversight was provided by Department; the report was completed in November 2002. A task force has been appointed by the Board consisting of two members of the Board, committee consultants of the Legislature, a representative from the Department, and other various members of the public and two engineers not affiliated with the Board. The task force is in the process of taking public comments and reviewing the report. Its recommendations will be submitted to the Board in January and it is expected final recommendations will be submitted to the JLSRC by February.
- ***Define electrical and mechanical engineering in statute.*** Senate Bill 2030 (Chapter 1006, Statutes of 2000), was the vehicle the Board used to place the definitions of electrical and mechanical engineering into statute and to update the current definitions. The new definitions clarify what these branches of engineering encompass as well as provide guidelines for engineering applicants when gaining experience to qualify to take the professional licensing examinations.
- ***Adopt a code of professional conduct.*** The Board sponsored AB 2629 (Cox) (Chapter 976, Statutes of 2000). One of the reasons for this bill was to place language into statute to allow the Board to adopt rules and regulations of professional conduct for professional engineers and land surveyors. After conducting thorough research of the Codes of Conduct of other states' engineering and surveying professions and other professions in California, the Board then conducted numerous public meetings to solicit comments from the profession and the public regarding what should be included in the Codes of Professional Conduct. The Board received and considered numerous comments before adopting the Codes of Professional Conduct for Professional Engineers and Land Surveyors into its Board's Rules. The Codes of Professional Conduct are now reflected in Sections 475 and 476 of Title 16 of the California Code of Regulations, effective July 4, 2003.
- ***Cease issuing policy resolutions and codify as regulations or statutes.*** All policy resolutions of the Board have been withdrawn.
- ***Adopt a written contract requirement for engineers.*** The Board sponsored AB 2629 (Cox) (Chapter 976, Statutes of 2000) to add Section 6749 to the Professional Engineers Act and Section 8759 to the Professional Land Surveyors' Act requiring that professional engineering and land surveying services be undertaken only after the execution of a written contract, containing specified terms and conditions.

- ***“Clean-up” amendments to the licensing acts of engineers and land surveyors.*** The Board has pursued legislation the past few years to amend and clarify the Professional Engineers Act and the Professional Land Surveyors’ Act. The legislation has been contained in bills sponsored by the Board, the JLSRC, and the Senate Business and Professions Committee. Senate Bill 1307 (Senate B&P Committee) (Chapter 983, Statutes of 1999) created a retired status for engineers and land surveyors. The Board then prepared a rulemaking package amending Section 407 of the Board Rules establishing the fee for a retired license (effective April 14, 2001).

Senate Bill 2030 (Figueroa) (Chapter 1006, Statutes of 2000) amended numerous sections of the Professional Engineers Act and the Professional Land Surveyors’ Act to make non-controversial, “clean-up” amendments to the laws. The Acts were amended to clarify the requirements for out-of-state businesses with branch offices in California offering engineering and land surveying services; to clarify that the California Laws and Board Rules (“Take Home”) examination was to be based on the Professional Engineers Act, the Professional Land Surveyors’ Act, and the Board’s Rules; and to clarify the signing and sealing requirements of civil, electrical, and mechanical engineering documents. In addition, sections were added to give the Board the authority to revoke an EIT or LSIT certificate if it is determined that the certificate holder had provided false information on his or her application or had been convicted of a crime substantially related to the professional practice.

Finally, the Professional Land Surveyors’ Act was amended to clarify what titles are restricted for use only by licensed land surveyors and to expand the list of actions by unlicensed individuals that constitute violations. Senate Bill 2026 (Senate B&P Committee) (Chapter 1013, Statutes of 2002) amended Sections 6706 and 6788 to extend the “Good Samaritan” immunity and repair fraud penalties to include all declared federal, state, and local emergencies, not just those caused by natural disasters.

- ***Eliminate state-only examinations for structural engineering and land surveying and provide national examinations instead.*** The Board was legislatively mandated to begin administering the National Council of Examiners for Engineering and Surveying (NCEES) Professional Land Surveying (PLS) examination along with a state-specific examination in 2003. The Board is legislatively mandated to administer the NCEES Structural Engineering (SE) II examination along with a state-specific examination in 2004. The Board offered the NCEES 6-hour PLS examination and a 4-hour state specific examination in April 2003. The Board is in the process of conducting an occupational analysis to determine the state-specific portion of work to be tested on the state-specific examination for structural engineers. The project is on track, and the Board sees no obstacles in administering both the NCEES SE II examination and state-specific examination in October 2004.
- ***Implement schedule for performing occupational analysis for all examinations provided by the Board.*** The Board adopted a schedule that provides funding for a new occupational analysis and test plan for each Board developed examination every five years. The Board has been attempting to meet this schedule for each examination, and every Board-developed examination has had an occupational analysis and/or subject matter expert review of the test plan completed within the last five years. Historically, examinations purchased from the National Council of Examiners for Engineering and Surveying (NCEES) have had a longer cycle; however, the California Board has requested that this be shortened to five years. NCEES has been attempting to be compliant with this request. Most of the NCEES

examinations have had an occupational analysis and/or subject matter expert review of the test plan completed within the last five years.

- ***Seek fee increase to deal with Board's projected budget deficit.*** SB 136 (Figueroa) (JLSRC omnibus bill) (Chapter 495, Statutes of 2001) amended Sections 6799 and 8805 to increase engineering and land surveying application fees. It also amended Sections 6795 and 8801 to convert the Board's license renewal cycle from every four years to every two years. The Board then, through the rulemaking process, amended Board Rule 407, effective July 1, 2003, to increase the examination application fees. Also effective July 1, 2003, Board Rule 407 was amended to change the renewal cycle from four years to two years and to change the renewal fee to \$150.00. All licenses that expire on or after July 1, 2003, are subject to the new renewal fee and will be renewed for a 2-year period. The renewal fee will decrease to \$100.00 every two years for licenses that expire on or after July 1, 2005. Based on these fee increases, the Board does not project a deficit in the near future and does not project the need to increase fees or reduce its current fees.
- ***Change composition of Board to include engineers from the public sector.*** SB 2030 (Chapter 1006 Statutes of 2000), amended Section 6712 of the Engineers Act to require that one of the professional engineer members of the Board for Professional Engineers and Land Surveyors be from a local public agency and another professional engineer member be from a state agency. Currently, the Board has three licensees from state agencies and one licensee from a local agency. [2 professional engineer members are from a state agency, and the professional land surveyor member is also from a state agency.]

The following are unresolved issues pertaining to the Board, or areas of concern for the JLSRC, along with background information concerning the particular issue. Where necessary, the staff of the JLSRC have made preliminary recommendations for members and the Department to consider. There are also questions that staff have prepared concerning the particular issue. The Board was provided with these questions and should be prepared to address each one.

# CURRENT SUNSET REVIEW ISSUES

## ENGINEERING PRACTICE ISSUES

**ISSUE #1.** Should Title Protection Acts for specified disciplines of engineering be eliminated and instead converted to Practice Acts pursuant to the Legislature's sunrise process?

**QUESTION #1 FOR THE BOARD:** *Please provide a brief overview of the efforts of the Board to deal with the issue of regulating title acts versus practice acts, and what actions the Board is taking pursuant to the recent study completed by the ISR regarding title act registration of engineers in California.*

**BACKGROUND:** For almost thirty years the Board has struggled with practice and title act registration without resolving what the appropriate level of regulation should be. There are currently three practice-restricted disciplines (Civil, Electrical and Mechanical), and ten engineering specialty "title acts" regulated by the Board (Agricultural, Chemical, Control Systems, Fire Protection, Industrial, Manufacturing, Metallurgical, Nuclear, Petroleum and Traffic). The title acts grant recognition to those engineers who have met the experience and testing requirements of the Board, and only allow those who have met the qualifications to call themselves "professional engineers" (PE) and use the specific engineering title. However, it does not restrict other engineers or non-engineers from offering similar services in those engineering disciplines.

California is unique in offering title act registration. Other states have "generic" licensing laws where all engineers are licensed (registered) as PEs. There are generally no restrictions on the use of the specialty title, but just on the use of the term PE. However, an engineer who is working in the area of industrial engineering, for example, (a California title act branch) would have to be licensed with that state, since any engineer practicing or offering to practice engineering must be licensed unless some exemption applies. In many states the exemptions for licensure are somewhat narrow and restrictive.

In 1982, the Legislature required the Board to review all practice and title disciplines and submit a report to the Legislature. In May 1984, the Board adopted a motion to retain the current practice disciplines, add chemical engineering as a practice discipline, and freeze the title disciplines as written. The proposal to change chemical engineering to a practice act was never submitted to the Legislature, and thus no changes occurred.

During the early 1990s, the Board revisited the issue of title and practice act registration. This prompted the beginning of what was called the "PE Act Rewrite." For three years, from 1994 to 1997, the Board held 12 informational forums throughout the State and participated in approximately 50 meetings sponsored by professional societies. Finally, in January of 1997, the Board introduced Assembly Bill 969 (Cardenas). It was intended to update the way engineers are licensed and registered in California and make other clarifying changes. It completely restructured the licensing process for engineers by eliminating title acts and converting them to practice acts. Under this measure, the Board would have authority to convert title acts to practice acts or to eliminate them entirely. (It is usually the prerogative of the Legislature and the Governor to approve practice act restrictions.) The legislation also made many other changes to the PE Act that impacted the way engineers work within California, and for those coming from

other states or countries. It would also have changed certain definitions and exemptions for licensure, thus expanding the number and types of unlicensed engineers who must be licensed by the Board.

The Joint Committee took no position on the “PE Act Rewrite” during its initial review of the Board in 1996. It received final versions of this proposal too late to complete a thorough analysis prior to the November hearings. It instead recommended that the Board demonstrate to the Legislature and the Administration how the rewrite would improve the existing regulatory situation for consumers. It did however support the efforts of the Board to eliminate title acts where there was no risk of harm to the public by deregulation of a particular title act discipline.

The Board was unable to generate any significant support from either the Legislature or the Administration for its proposal during 1997. One of the reasons given for the failure of AB 969 was a lack of understanding and confusion about what the Board was trying to accomplish by rewriting the entire Professional Engineers Act. The measure was seen as too limiting and restrictive on the current practice of engineering in this State. Although the Board claimed that this new licensing scheme would clear up the confusion and problems with the current Engineer’s Act, insufficient evidence was provided to demonstrate that this would be accomplished. There were also major concerns regarding the method in which the Board would use to determine which title acts should become practice acts by converting them through the regulatory process rather than through the Legislative process.

The Center for Public Interest Law (CPIL) expressed some major concerns regarding this proposal as well. In a letter to the Board dated October 2, 1995, CPIL outlined some of its concerns as follows:

- The proposed model of licensure within the PE Rewrite would create 13 new licensing categories without the benefit of sunrise-style analysis of the Legislature.
- Provisions in this proposal could drive unregistered title act engineers to other states, inhibit new business from moving to California, and impose unmanageable costs on existing businesses.
- These new practice areas would not be defined in statute or regulation, but instead the Board would rely on test plans of the National Council of Examiners and Engineers and Surveyors (NCEES) to define areas of practice for both testing and enforcement purposes. However, CPIL said that determining which engineering disciplines should require registration in California based on whether or not a national organization offered a test in the particular discipline was “unacceptable.” Instead, such determinations should be based on potential harm to the public by incompetent practice within particular engineering disciplines.
- Disciplinary action against engineers for incompetence would be made more difficult because of shifting burdens of proof. If engineers were outside their area of discipline, as permitted by the PE Rewrite, they would be required to prove competency in that area, even though undefined by the Board. The engineer “would bear the burden of proving an unprovable thing.”

CPIL indicated that the PE Act Rewrite was quite possibly worse than the existing statutory structure.

The PE Act Rewrite language was finally dropped from AB 969 in January of 1998, and the amendments to the bill simply changed the name of the Board, allowed engineers registered by the Board to be considered as “licensed engineers,” included the word “licensed” along with the word “registration” in other parts of the PE Act, and eliminated the examinations for corrosion, quality, and safety engineering. (All those currently titled as such could continue to use the title, but after January 1, 1999, these three branch titles would be eliminated from the PE Act.)

Although the Board was not granted legislative authority to make determinations about which title acts should be eliminated or converted to practice acts, the Board has always had the authority to evaluate whether specific title acts are necessary and make recommendations to the Legislature and the Administration. The Board took the first step in accomplishing this through the passage of AB 969, which eliminated the title act branches of corrosion, quality, and safety engineering. The Board also conducted two meetings to allow affected engineers an opportunity to respond to this original proposal. At the outset, elimination of the title act for traffic engineers was also considered, but agreement was reached that deregulation of this branch could endanger the safety of the public on our highways, and local cities and county transportation agencies required registration.

The Joint Committee recommended, in anticipation of a review of the Board in September 1998, that it conduct a more thorough analysis of the remaining title acts that potentially could be eliminated without endangering the health, safety, property, or welfare of the public, and “clearly demonstrate why the title act should be continued.” The Joint Committee provided a number of criteria that could be used in performing this analysis. Although the Board did address some of the criteria, no discussion, conclusions or justifications were reached concerning each of the ten remaining title act disciplines. The Board determined instead that all title acts should be continued for now because there is too much controversy surrounding their elimination, because of comity considerations, and because NCEES currently provides an examination in those particular disciplines. (It should be noted that the Board does not have title acts for all branches of engineering tested by NCEES. Other areas tested by NCEES include environmental, mining and mineral, and ship design.) The Board indicated that it still believes that title act registration provides minimal public protection and should be replaced with practice act regulation for all branches of engineering. The Center for Public Interest Law (CPIL) was critical of this analysis and conclusions reached by the Board.

The JLSRC, the Board, and Department decided that the best way to effectively address this issue was to contract with an independent consultant to perform a review of all of the title act branches. Senate Bill 2030 (Chapter 1006, Statutes of 2000) mandated that an independent research group conduct an in-depth analysis of the Professional Engineer’s Licensing Act, by adding Section 6704.1 to the Business and Professions Code. The California State University Sacramento Institute for Social Research (ISR) was hired and oversight was provided by Department; the report was completed in November 2002.

The ISR study found that there was no clear rationale for California to continue with a licensing structure which makes a distinction between the title act and practice disciplines and to grant them separate regulatory status. The ISR recommended that title protection (acts) be eliminated and practice protection be granted to all currently regulated disciplines.

The ISR study also indicated that information regarding legal actions against engineers and more comprehensive complaint data and insurance premium and claims data should be collected to determine whether there is any justification for deregulating any of the title act branches of engineering. When this data becomes available, the need for continuing regulation could be evaluated at that time. However, current information relevant to sunrise criteria used by the Legislature supports extending practice protection to all currently regulated disciplines. As pointed out by the ISR, information developed in its study provides significant reason to recommend that all of the disciplines of engineering currently regulated by the Board should be retained with practice protection. The study shows that job analyses identify defined tasks for the separate disciplines, and that while overlap in education and exam content exists between some discipline pairs, they are distinguishable from each other. The regulated disciplines are taught in engineering schools and their knowledges and skills are testable using NCEES and California exams. The comparison states within the study do not distinguish California's practice and title act disciplines in their licensing structure. They require a similar education and experience background and recognize passage of an NCEES exam as the route to generic or discipline-based licensure. Thus, there are no systematic differences between practice and title disciplines on those sunrise criteria for which information is available.

**ISSUE #2. Should all prohibitions against overlapping practice between engineering disciplines from the Professional Engineers Act and Board Rules be removed?**

**QUESTION #2 FOR THE BOARD:** *Please explain the issue of overlap and supplementary practice being performed by engineers, and what actions the Board is taking pursuant to the recent ISR study and recommendations made by ISR regarding overlapping practice.*

**BACKGROUND:** The definitions of the practice act branches of civil (defined in statute), electrical and mechanical engineering (defined in Board regulations) are very broad and general. Each definition encompasses a wide scope of practice and outlines a number of tasks and activities included within the particular branch. Conversely, the definitions of the title act branches are more limited and specific and each definition ends with the sentence: “*The above definition of (Title) engineering shall not be construed to permit the practice of civil, electrical or mechanical engineering.*”

This last sentence has created ambiguity in what may be considered as permissible tasks or activities outside of the engineers branch of registration, because most of the definitions of title act engineers are encompassed by one or more practice act definitions. That is, there is clearly an overlap in most title act branches, since by definition they constitute a specialty subdivision of the engineering work covered in at least one of the practice acts. For example, traffic engineering falls within civil engineering, control system engineering falls within electrical engineering, and fire protection engineering falls within mechanical engineering. However, because overlap is not legally recognized, tasks or activities performed by title engineers that fall under civil, electrical or mechanical engineering, or those performed by electrical or mechanical engineers that fall under civil engineering, could be considered as unlawful and the unlicensed practice of engineering.

The Engineer's Act does not adequately reflect the current practice of engineers in this State. Other states have recognized this problem, as well as the NCEES, and have recommended legal recognition of overlap that occurs within the different branches of engineering. Other states also



permit some supplemental or incidental practice in other areas where the engineer, either through education, experience or training, is competent to perform the work.

Currently, civil engineers are the only registrants who can perform work in any other branches of professional engineering within California. Section 6737.2 of the B&P Code provides an exemption that allows supplemental work by a civil engineer as long as the work is incidental or in connection with civil engineering work or study.

The Board has recommended that only electrical and mechanical engineers be allowed to perform incidental civil, electrical or mechanical engineering work, as long as they are competent in these areas based on education, training, and experience. They believe this would reduce the number of gray areas between these related disciplines of civil, electrical and mechanical engineering. However, the Board does not agree with allowing title act branches to perform work in the practice act branches of civil, electrical or mechanical engineering, because it does not have the ability to prevent a title act engineer from practicing in the future if they are found to be incompetent. The Board can only revoke the use of the title, not their practice. (It should be mentioned that the Board originally proposed allowing some overlap between all branches of engineering, as long as the title acts were converted to practice acts.)

The ISR argued in its study that if title acts are converted to practice acts then there would appear to be no justification for maintaining the current licensing system's one-directional allowable overlap for civil engineering only. Some of the supportive findings provided by ISR included the following:

- California is the only state to specifically allow one-directional overlap of civil into all other disciplines and of electrical and mechanical into the title act disciplines and to prohibit the reverse.
- Education, examination taken and job experience are used to define areas of competence in all other states however they may differ in the degree to which they regulate overlapping practice.
- All engineers share a core of support units in education and some engineering disciplines share engineering course work as well.
- Overlap between disciplines also occurs in the knowledge tested on national licensing examinations, and in some there is extensive overlap between examinations.
- In some instances, because of restricted overlap, title act engineers are forced to acquire a practice act license and this increases costs for the title discipline as well as costs for the consumer.
- The one-directional overlap for civil engineers provides a competitive advantage for civil engineers over that of title act engineers who have made a considerable investment in establishing their educational credentials. Title act engineers in disciplines that overlap with some part of civil or mechanical engineering are currently limited in their ability to benefit from that investment – a restriction of trade that would not seem to be justified by differences in educational preparation or exam content.

- Another effect is on the regulatory process which causes more complaints to be filed regarding unlicensed practice when there are more restrictive provisions regarding overlapping practice.
- There are problems with comity for out-of-state engineers where other states have recognized overlap between the different disciplines of engineering.
- The determination of allowable overlap in a technology complex, rapidly changing set of disciplines is not practicable by a professional, political or disciplinary group. In general, licensed professionals should operate within the area of their education, training and examination, as currently specified in Board Rule 415.

**ISSUE #3. Should all regulated disciplines of engineering be given the right to responsible charge of engineering projects when justified by their education and experience?**

**QUESTION #3 FOR THE BOARD:** *Please explain the current requirements regarding the responsible charge of engineering projects, and what actions the Board is taking pursuant to the recent ISR study and recommendations made by ISR regarding this issue.*

**BACKGROUND:** Section 6703 of the Business and Professions Code defines “responsible charge of work” as the independent control and direction, by the use of initiative, skill, and independent judgment, of the investigation or design of professional engineering work or the direct engineering control of such projects. The phrase does not refer to the concept of financial liability. Section 404.1 of the Board’s Rules more specifically defines “responsible charge” and provides criteria for determining when an engineer is in responsible charge. Sections 6730 and 6730.2 restricts the ability title act engineers to be in responsible charge of engineering projects.

As indicated by the ISR, similar to the issue of allowing overlapping practice between disciplines of engineering, there appears to be no reason to restrict title act engineers from being in responsible charge for engineering projects which they would be permitted to perform pursuant to their education, examination, training and experience. The ISR argued that restriction of responsible charge for title act engineers undermines protection of public health, safety and welfare and may be weakening the title act disciplines in the state. As pointed out in the study, there may be instances in which title act engineers may actually be more qualified to be in responsible charge where engineering projects may be more in line with their specialty area. Also, it was noted the hierarchical nature of responsible charge, similar to restrictions on overlapping practice, distorts the licensing process because engineers in the more specialized and less powerful branches must seek licensing in the practice branch closest to their specialty to be in responsible charge of engineering projects.

## **LICENSURE ISSUES**

**ISSUE #4:** Should the Board be granted authority to fingerprint applicants so that it may collect criminal history information on its candidates for licensure?

**Question #4 for the Board:** *Please explain why the Board is recommending that it be granted legislative authority to collect fingerprints from its applicants and licensees and to obtain both state and federal criminal information on its applicants and licensees.*

**Background:** According to the Board, applications for in-training certificates and for professional licensure (for both engineering and land surveying) require all applicants to state whether or not they have been convicted of a crime because current law allows the Board to deny certification or licensure if the applicant has been convicted of a crime substantially related to the qualifications, functions, and duties of the professional practice. However, the Board does not have the legal authority to obtain criminal history information to verify if the information provided on the applications is correct. Since the Board has no legal authority to independently verify the truthfulness of an applicant's response, the Board must rely solely on the information provided by the applicant on the applications. This current process does not adequately protect consumers.

Additionally, the Board can take disciplinary action against a licensee if the licensee has been convicted of a crime substantially related to the qualifications, functions, and duties of the professional practice. However, the Board is not able to proactively monitor whether its licensees have been convicted of crimes because it is not able to obtain criminal history information directly. The Board must wait for someone to submit a complaint and provide the conviction information. Again, this current process does not adequately protect consumers.

When the Board discussed seeking the legislative authority to obtain criminal history information for its applicants and licensees, some of the Board's licensees questioned why that would be necessary and was there really a problem that would justify doing this. Professional Engineers and Professional Land Surveyors have the right to go onto a person's property – without the person's consent – in order to conduct professional engineering and professional land surveying. Even without that allowance, there are many times when professional engineers and professional land surveyors are requested by consumers to go into the consumers' homes or businesses or go onto the consumers' properties in order to perform professional engineering and professional land surveying services. Without the ability to obtain criminal history information on its applicants and licensees, the Board is not able to fully meet its legislative mandate to safeguard the life, health, property, and public welfare of California's consumers of professional engineering and land surveying services.

If the Board were given the legislative authority to obtain criminal history information, the Board would collect fingerprints from all of its applicants and licensees and then submit them to the Department of Justice. Once the Board was listed in the system as an agency to receive criminal history information, such information would automatically be sent to the Board whenever the information was entered into the system. The Board would no longer have to rely upon the truthfulness of its applicants to verify the information provided on applications nor would the Board have to wait for someone to submit a complaint regarding the conviction of a licensee. The Board's staff would review all of the criminal information and investigate any crime that appeared to be substantially related to the qualifications, functions, and duties of the profession.

If the evidence showed that the crime was substantially related, then the Board would use that to deny certification or licensure to the applicant or would pursue disciplinary action against the licensee.

**ISSUE #5:** Should the Board be required to collect additional information regarding the background of the applicant for licensure and link this information to complaint outcomes that could be used for evaluative purposes and for providing the public with more information regarding the licensee?

**Question #5 for the Board:** *Please explain what information the Board currently collects regarding an applicants background and what information is made available to the public? Is this background information linked to disciplinary data regarding the licensee (such as on the Board's website)? What additional burdens would it place on the Board to collect information regarding an applicants education, exam testing, job experience and specialization so that it could used for evaluative purposes, and so certain relevant background information of the licensee could also be disclosed to the public? Does the Board believe that obtaining this additional information will prove useful in identifying areas of expertise and assessing policies associated with exam administrations as indicated by the ISR?*

**Background:** The ISR recommended that the Board should track engineering degrees, examinations taken and job experience at the time of applications for licensing as a means of identifying areas of expertise and assessing policies associated with examination administration, ISR indicated that some of the information collected on licensees could be provided to the public. It also indicated that if the justification for licensing is protection of public health, safety and welfare, and if the state recognizes engineering as a field with the potential for significant social harm, then the state should accept the responsibility of maintaining useful records on applicants for licensure and complaints against licensees so that evaluative questions can be asked of the data.

According to the ISR, while California's tracking of data on the licensing and disciplining of engineers is better than what it was able to obtain from its comparison states, the limited resources assigned to these functions in all of the states studied undermines accountability to the public. Although tracking applicant background and exam performance for internal analysis would add to the Board's responsibilities, it would improve accountability to the public and the profession. At a minimum, degrees and their specializations, the university granting the degree, qualifying job experience, and primary language should be in a file with scores on the exams taken. If applicant background information were kept in a single database linked to exam performance, it would be possible to assess what backgrounds were associated with success or failure on exams. Educational backgrounds associated with success on the exams could be summarized for the benefit of those seeking licensing. In addition, this information could be used to understand the reasons for California's performance on certain exams.

The ISR further indicated, that licensee data should also be linked to data files summarizing complaints and their outcomes. This would allow an analysis of the backgrounds of engineers generating complaints and their outcomes. Currently, complaint outcomes are not adequately captured in the database. Ultimate disposition after referral to another agency and disciplinary actions taken are not included. The inability to link licensee background and complaint data and

the quality of the complaint variables limits the ability to analyze patterns of relationships

between factors associated with incompetent practice and outcomes. For example, this type of analysis could be used to inform policy by examining whether the outcomes are appropriate to the problem and whether recurring problems are associated with a particular discipline. A licensing system that is accountable to the public should maintain records that permit the identification of problems in a regulated discipline and the assessment of whether the complaint and legal processes are adequately protecting the public.

The ISR additionally pointed out, that tracking professional training could also benefit the public as well as potential clients and employers. At a minimum, potential clients and employers would be able to confirm an engineer's degree and areas of specialization, the university granting the degree and the licensing examination completed as general indicators of the individual's competencies.

### **EXAMINATION ISSUE**

**ISSUE #6:** Should the Board work more closely with NCEES to assure that occupational analyses conducted for individual engineering examinations are more standardized and meet the legal requirements of California?

**Question #6 for the Board:** *Please explain what the Board does to assure that occupational analyses performed by NCEES meet the legal requirements of California and that they are conducted on a periodic basis? Should the Board and NCEES maintain files describing the job analyses to assure they meet legal requirements of "job-relatedness" and to assist educators and licensing boards in understanding and tracking changes in the field of engineering?*

**Background:** Occupational analyses and exam validations are critical components of appropriate and legally defensible licensure programs. Both types of reviews help the state ensure that the standards for entry into professions are consistent with the skills required in those professions. Various court decisions have established that in order to protect the civil rights of applicants for professional licensure, examinations used to assess competence must meet the test of "job-relatedness." According to the U.S. District Court, this standard requires that examinations test for current knowledge, skills and abilities necessary for the profession and periodic validation of each examination a candidate is required to take.

The ISR found that the current job analyses for engineering examinations provided by the Board vary in the goals, methodologies, and analytical techniques used by the separate disciplines in their survey design prepared by NCEES. Some disciplines provide a very brief and general description of important tasks and knowledges in their discipline, while others seek to provide a more extensive and detailed description of their field. The surveys differ in the measurement of educational background and job experience and in whether unlicensed engineers are included in the sample. Published reports on the results vary in the descriptive statistics used and in how the sample is grouped for analysis. Some describe the sample as a whole while others describe only subgroups within the sample. Most disciplines do not profile the variations in tasks in different job settings or in exempt or non-exempt employment, or by engineers with different levels or experience.

As pointed out by the ISR, engineering would benefit from not only coordinating sampling methods, but also standardizing the design of job analyses instruments across all disciplines and from a more sophisticated analysis of variations in tasks by licensing status and job setting that would link the exam more closely to the population taking them. Greater standardization in the methodologies of job analyses would make the resulting exams more equivalent as tests of competence in multiple engineering disciplines and would increase the usefulness of the job analyses in the assessment of overlap, a feature of importance to licensing boards. As indicated by the ISR, the lack of standardization prohibited the use of job analyses for purposes of their study.

## **ENFORCEMENT ISSUES**

**ISSUE #7: Should the Board seek statutory authority to mandate the reporting of legal actions, including civil judgments and out-of-court settlements against engineers and against corporations engaged in engineering activities?**

**Question #7 for the Board:** *Please explain the current reporting requirements for the Board and what actions the Board is taking pursuant to the recent ISR study and recommendations made by ISR regarding this issue.*

**Background:** According to the ISR, similar to medicine, but on a larger scale, engineering activities have the potential for significant harm to large numbers of people. In medicine, there appears to be more accountability. Errors are reported by hospitals and legal actions are reported to licensing boards. Engineering lacks a parallel reporting system. Mandated reporting would provide information on the potential for harm in exempt industries, and among unregulated disciplines and licensed engineers.

Currently, similar reporting requirements regarding civil judgments and malpractice settlements exist for architects, landscape architects and attorneys; recently, reporting requirements for civil actions were required for certified public accountants. All health-related boards require reporting of civil judgments, settlements and arbitration awards including those which regulated physicians, podiatrists, osteopaths, marriage and family counselors, dentists, psychologists, chiropractors, registered nurses, vocational nurses, optometrists, and veterinarians. The amount of the civil action settlement or arbitration award to be reported to the particular licensing agencies range from \$3,000 to \$30,000. The amount of \$30,000 is considered by malpractice insurers as indicating a possible violation of professional or practice standards and would be closely reviewed by the insurer.

**ISSUE #8: Should changes be made to the minimum period of one-year for a license to request reinstatement of their revoked license and petition for reductions or modification of penalty probation orders?**

**Question #8 for the Board:** *Please explain why the Board is recommending that changes be made to the time period for requesting reinstatement of a revoked license and petition for reduction or modification of probation orders.*

**Background:** The Board may take disciplinary action against its licensees for certain specific violations. The disciplinary action taken can include revoking the license or placing the license on probation through a penalty probation order. In pursuing disciplinary action, the Board follows the Administrative Procedure Act (Chapter 3.5 (commencing with Section 11340), Chapter 4 (commencing with Section 11370), Chapter 4.5 (commencing with Section 11400), and Chapter 5 (commencing with Section 11500) of Part 1 of Division 3 of Title 2 of the Government Code).

Government Code section 11522 provides former licensees and licensees with the right to petition the Board for reinstatement of revoked licenses or for reduction or modification of penalty probation orders. This section simply states that a person must wait at least one year after the revocation of the license or after the penalty probation order before petitioning the Board for reinstatement of the revoked license or reduction or modification of the penalty probation order. This section also states that the person must wait at least one year after the denial of a previous petition before petitioning the Board again. Section 11522 describes certain actions the Board must take in considering these petitions. Finally, the section provides that it does not apply if the Board has separate statutory provisions regarding such petitions. At this time, the Board does not have separate statutory provisions; therefore, it must follow the provisions of Section 11522.

However, the Board does not believe that one year provides sufficient time for an individual whose conduct was so egregious as to warrant revocation of his license to become sufficiently rehabilitated and re-education so as not to be a threat to the life, health, safety, welfare, and property of the public. The Board believes that extending the time period that such a person must wait before petitioning for reinstatement of the revoked license will provide that person with more time to come to terms with the revocation, and the actions that led to it, as well as providing more opportunity for rehabilitation. This, in turn, provides for better protection of California consumers. The Board also believes that basing the time period for petitions to reduce or modify penalty probation orders on the actual length of the probationary period, rather than just a standard one-year period for all cases, will also provide better public protection by ensuring that the individual serves an adequate rehabilitation and re-education probation.

Furthermore, the Board believes that existing policies, as well as case law and legal opinions, regarding the procedures to be followed by all parties in such petitions should be codified to ensure that they are consistent and so that all parties are fully aware of their roles and responsibilities, as well as the Board's duties and options.

## **BUDGETARY ISSUES**

**ISSUE #9:** The most significant change since the last sunset review is the impact that the budget crisis and especially the hiring freeze have had on the Board.

**Question #9 for the Board:** *Please explain the overall impact that budget cuts and the hiring freeze have had on the Board. Have any loans been made by the Board to the General Fund? Why are complaints of the Board being given a low priority by the Division of Investigation? Does the Board expect increased revenue and reserves over the next few years due to fee increases approved by the Legislature?*

**Background:** In the last two years, the Board's staff has been reduced from 38.5 positions to 33.5 positions. An additional 3 positions have been frozen and will be lost this year. Most of the vacancies are due to staff members leaving the Board for promotional opportunities elsewhere; however, due to the hiring freeze, the Board was not able to fill these vacant positions. The Board's administrative unit has been reduced from 13 full-time and 4 part-time positions to 8 full-time and 2 part-time positions. This means that the Board is now only able to have one main receptionist, rather than two, to answer telephone calls and greet visitors to the Board office; the Board is also unable to have a full-time mail clerk to process all of the incoming mail (including e-mails from the Board's website), thus causing delays in the distribution of the mail and the ability of staff to timely respond to the inquiries. The Board's enforcement and legislative unit (which also includes publications and the website) was reduced from 8 full-time and 2 part-time positions to 5 full-time and 2 part-time positions. This means that the Board is not able to timely maintain, update, and expand its website or publications or to process the consumer complaints in a reasonable time frame. Concurrent with the loss of staff positions in the enforcement unit, the Board has been receiving more complaints, thereby increasing the workload of a reduced staff. The Board is also experiencing an increasing backlog of enforcement complaint cases because of delays in investigation of those cases by the Division of Investigation (DOI).

DOI assists the enforcement unit staff with the investigation of some of the Board's complaint cases, especially those involving allegations of unlicensed practice. Due to the current State budget crisis, DOI has been unable to fill all of its vacant positions and has had to consolidate some of its regional offices throughout the state. This has caused delays in DOI's ability to timely investigate all of the complaints that are referred to it from the various boards and bureaus within DCA. DOI has had to prioritize its workload and focus its investigators on those cases in which there is an immediate threat to the public health, safety, and welfare. There is generally not an immediate threat to the public health, safety, and welfare in engineering and land surveying cases; therefore, DOI does not give this Board's cases a high priority. Although this Board refers only a small portion of its complaint cases to DOI, the inability of DOI to timely investigate these cases has contributed to the overall aging of the Board's complaint investigation cases.

#### **ISSUE #10: Should the Board spend a larger percentage of its budget on its Enforcement Program?**

**Question #10 for the Board:** *Please explain why the Board spends such a large percentage of its Budget on its Examination Program. Has the Board considered other alternatives to spending more on its Enforcement Program, such as requiring applicants for licensure to pay the full costs of the Board in processing applications and providing examinations rather than subsidizing these costs with licensing fees?*

**Background:** The Board currently spends a smaller percentage of its budget on enforcement overall than most other boards. Since Fiscal Year (FY) 1998-99, the majority of the Board's expenses (54%) have been utilized for the Examination Program. The total expenditures for the Board in FY 2002-03 was approximately \$7.1 million. The Board spent more than \$4 million of its total expenditures on its examination program. Second in line for expenditures was the Administrative Program of the Board at 20% averaging approximately \$1.4 million. The Enforcement Program averages 19% in costs or \$1.3 million. Lastly, the Licensing Program accounts for an average of 8% of the Board's expenses averaging approximately \$569,000.



Most boards spend about 65% of their budget on enforcement, while some boards spend almost 75% of their budget on enforcement. It is unclear with recent fee restructuring and increases granted by the Legislature, and a projected increase in its revenue over the next few years, why the Board cannot spend more on its Enforcement Program. Also, if new responsibilities and authority are granted to the Board for collecting criminal information, as well as requiring reporting of other legal actions taken against licensed engineers, it will be necessary for the Board to expand its Enforcement Program.